

WHAT IS CLAIMED IS:

1 1. An adenovirus comprising a gene, the expression of which is under the control of a site-specific  
2 recombinase.

1 2. The adenovirus of claim 1 wherein said gene is comprised of foreign DNA and is operably linked  
2 to target sites of a site specific recombinase, and wherein recombination between said target sites  
3 results in expression of a gene product of said gene.

1 3. An adenovirus comprising a gene, and site-specific recombinase target sites operably linked to  
2 the gene, whereby recombination between said target sites mediated by a site-specific recombinase  
3 alters expression of the gene.

1 4. An adenovirus comprising a gene, and site-specific recombinase target sites flanking a promoter  
2 sequence that promotes expression of the gene, whereby recombination between said target sites  
3 mediated by a site-specific recombinase removes the promoter sequence, resulting in decreased  
4 expression of the gene.

5 5. The adenovirus of claim 4, wherein the gene is from a non-adenoviral source.

1 6. An adenovirus comprising a gene, a promoter sequence directed away from said gene, and two  
2 site specific recombinase target sites flanking said promoter but oriented in opposite orientation to  
3 one another, whereby recombination between said target sites mediated by a site specific  
4 recombinase inverts the promoter sequence, resulting in increased expression of the gene.

1 7. The adenovirus of claim 6, wherein the gene is from a non-adenoviral source.

1 8. An adenovirus comprising a gene, and site-specific recombinase target sites flanking a DNA

2 spacer sequence located between a promoter sequence and the gene, whereby recombination between  
3 said target sites mediated by a site-specific recombinase removes the DNA spacer sequence, resulting  
4 in increased expression of the gene.

1 9. The adenovirus of claim 8, wherein the gene is from a non-adenoviral source.

1 10. An adenovirus comprising a gene and site-specific recombinase target sites flanking a coding  
2 sequence for the gene, whereby recombination between said target sites mediated by a site-specific  
3 recombinase removes the coding sequence, resulting in decreased expression of the gene.

1 11. The adenovirus of claim 10, wherein the gene is from a non-adenoviral source.

1 12. An adenovirus comprising a gene, a portion of said gene comprising a coding sequence oriented  
2 in an opposite direction to normal translation of the gene, and two site specific recombinase target  
3 sites flanking said coding sequence but oriented in opposite orientation to one another, whereby  
4 recombination between said target sites mediated by a site specific recombinase inverts the coding  
5 sequence, resulting in increased expression of the gene.

1 13. The adenovirus of claim 12, wherein the gene is from a non-adenoviral source.

1 14. An adenovirus comprising a gene and site-specific recombinase target sites flanking the gene,  
2 whereby recombination between said target sites mediated by a site-specific recombinase removes  
3 the gene, resulting in decreased expression of the gene.

1 15. The adenovirus of claim 14, wherein the gene is from a non-adenoviral source.

1 16. An adenovirus comprising a gene, said gene oriented in an opposite direction to normal

translation of the gene, and two site specific recombinase target sites flanking said gene but oriented in opposite orientation to one another, whereby recombination between said target sites mediated by a site specific recombinase inverts the gene, resulting in increased expression of the gene.

17. The adenovirus of claim 16, wherein the gene is from a non-adenoviral source.